

FIGURE 1

**tunable  
laser  
source**



**optical  
fiber**

**microsphere**

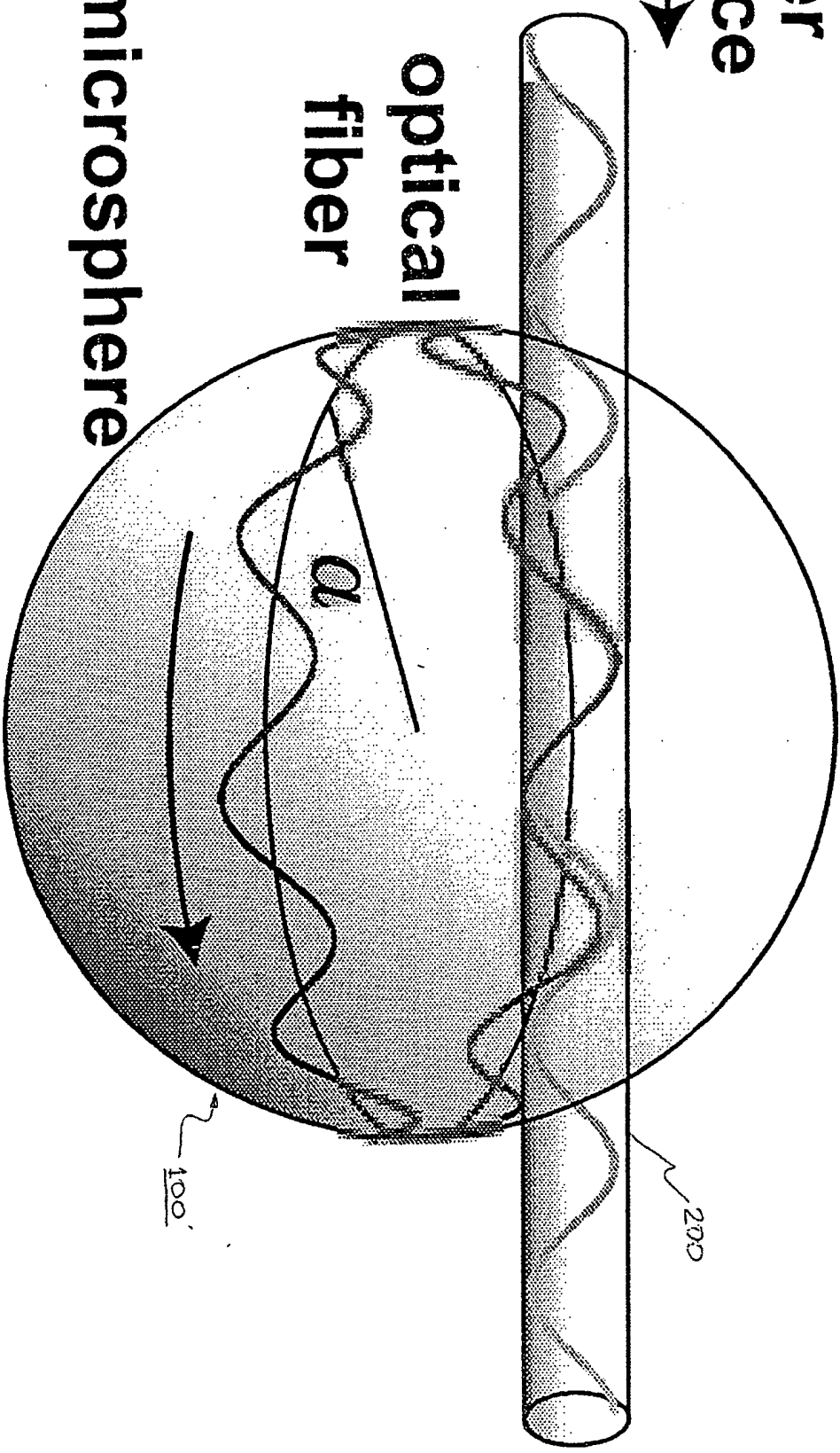


FIGURE 2

10-100  $\mu\text{m}$



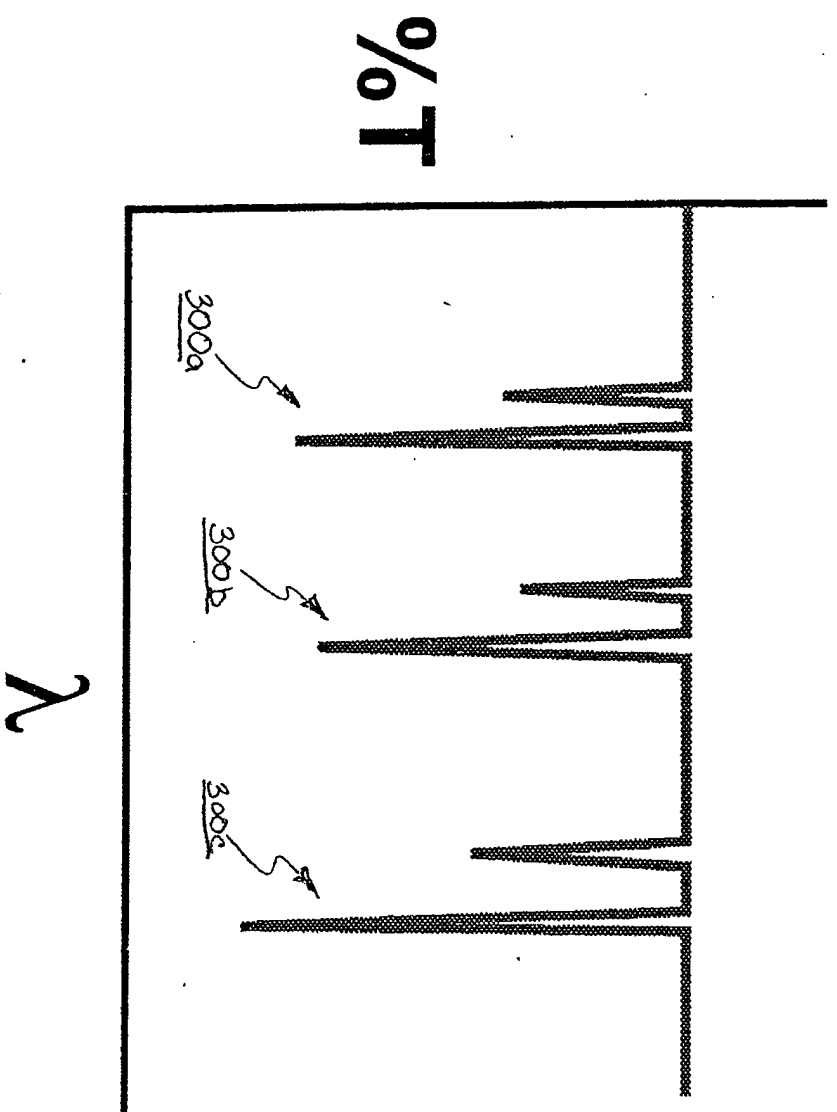


FIGURE 3

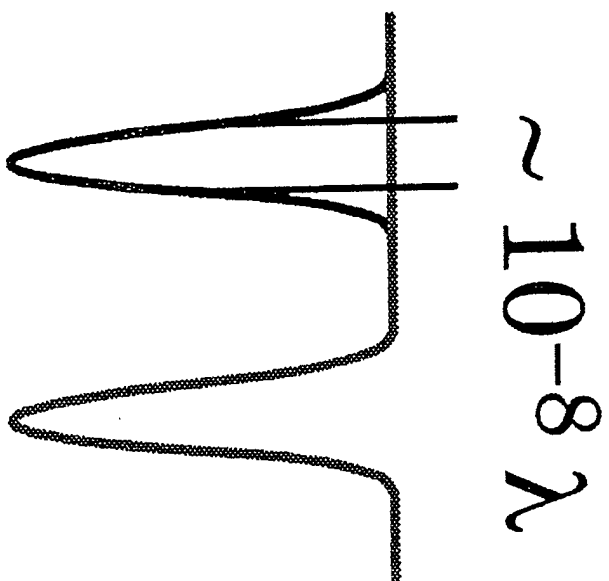
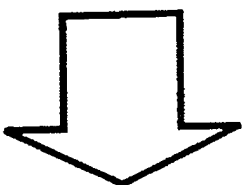
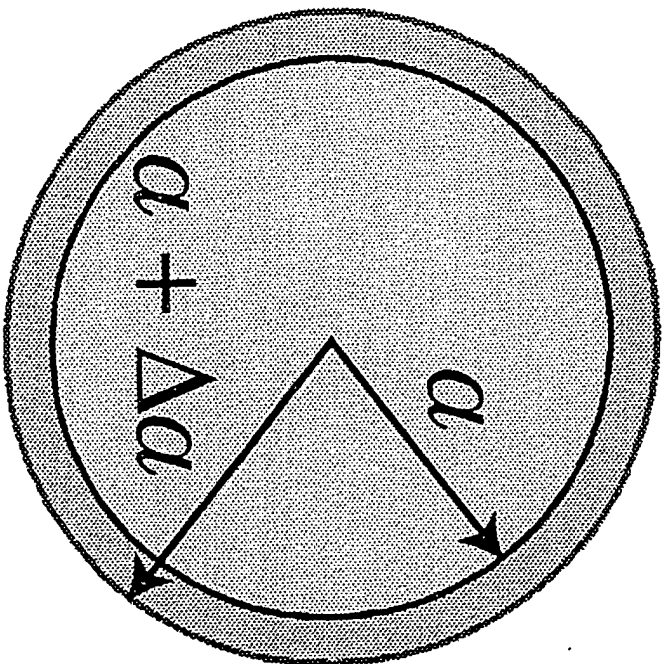


FIGURE 4



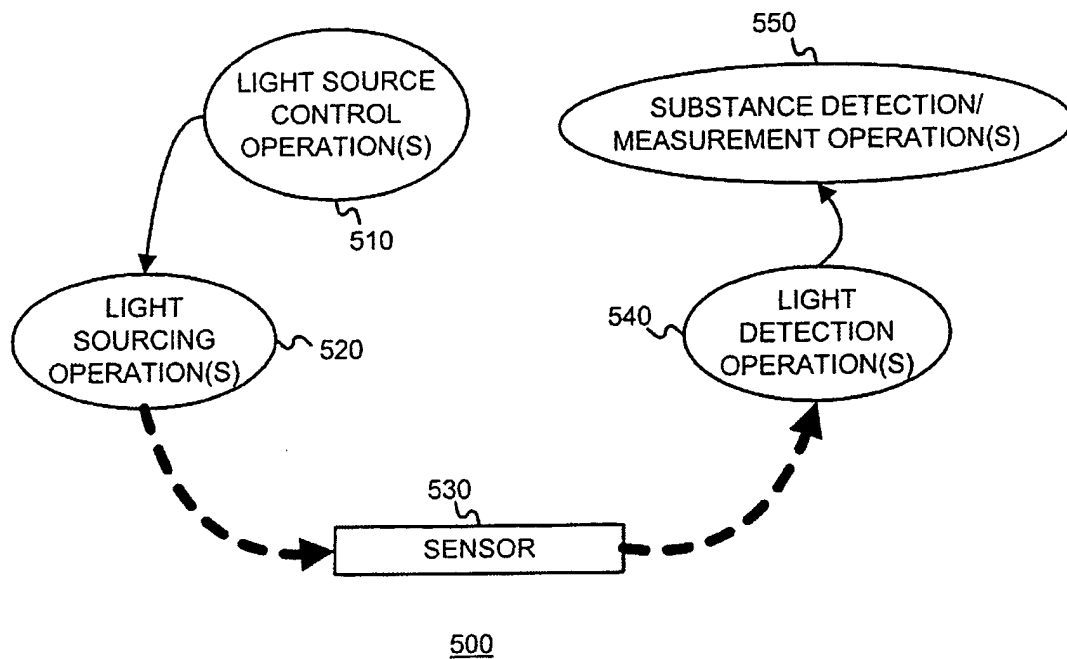


FIGURE 5

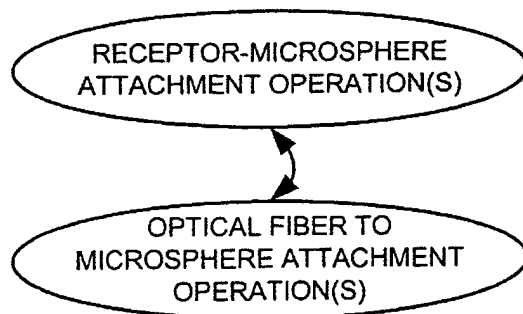
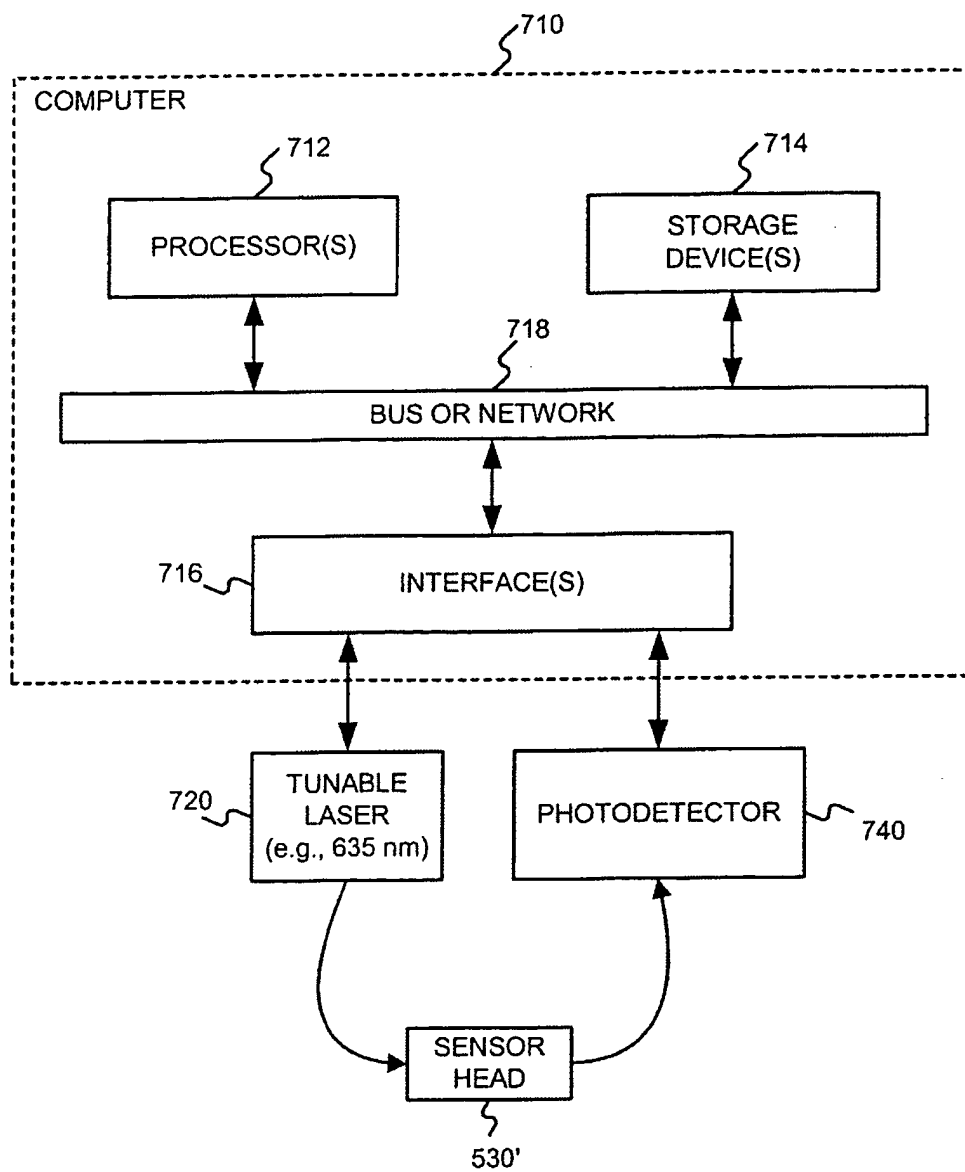


FIGURE 6



700  
FIGURE 7

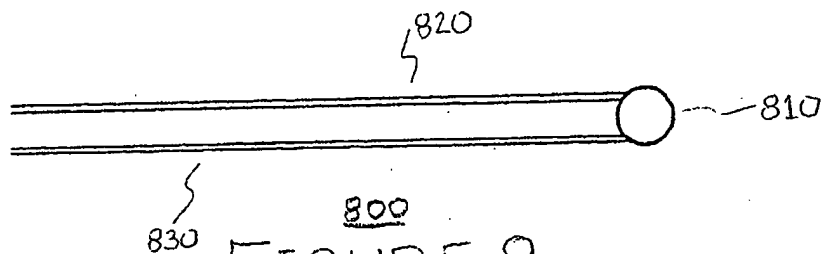


FIGURE 8

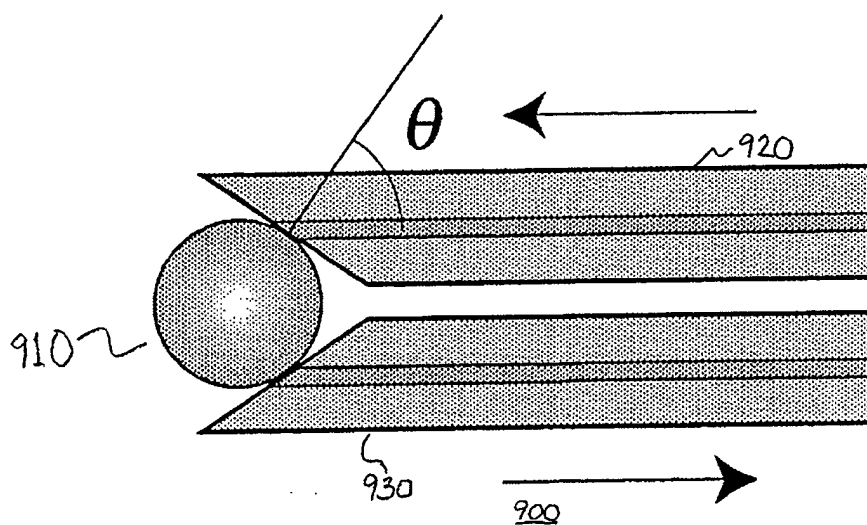


FIGURE 9

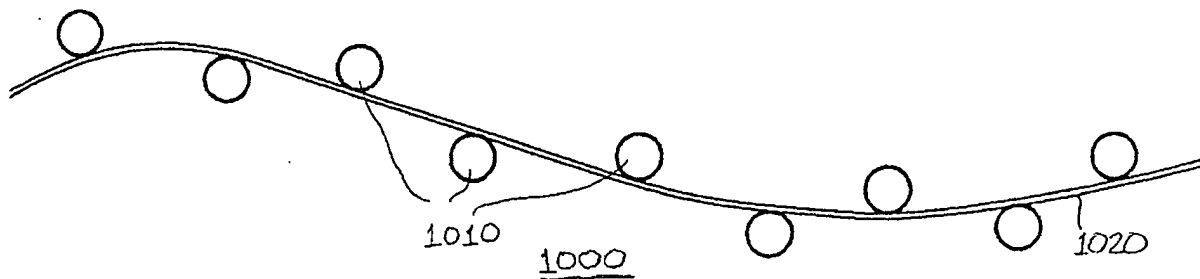
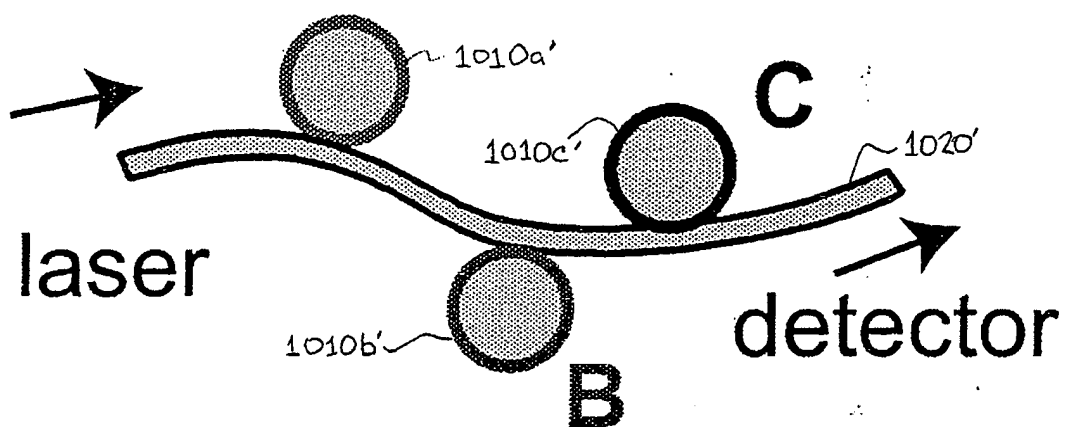


FIGURE 10



1000'  
FIGURE 11

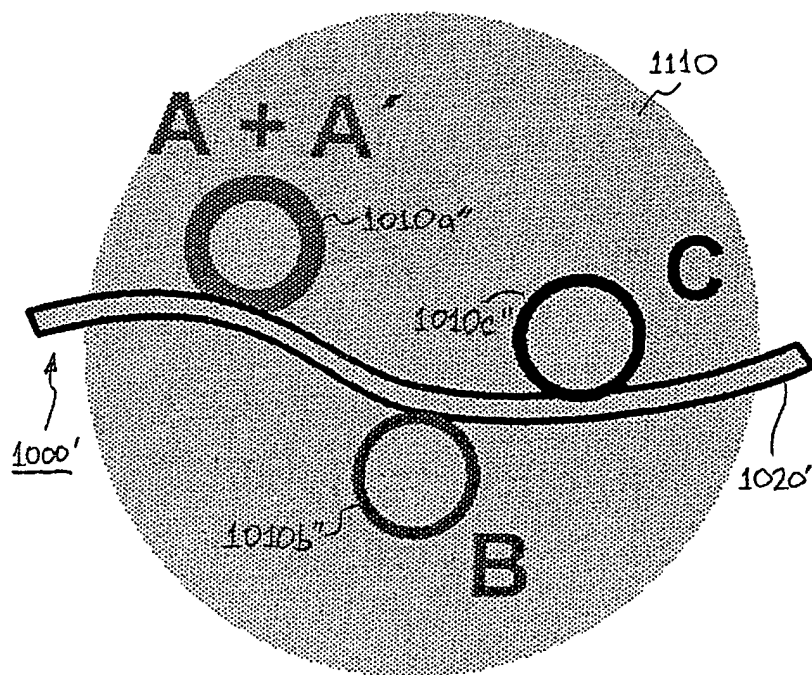


FIGURE 13



FIGURE 12A

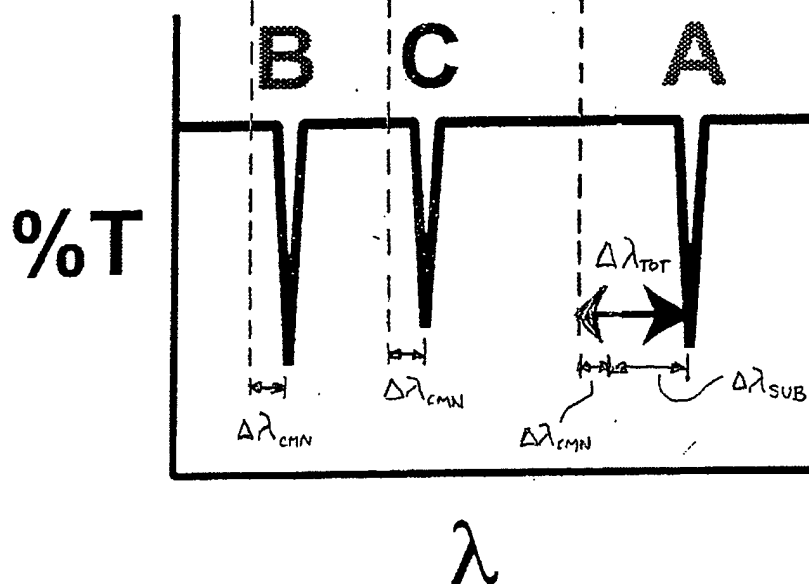
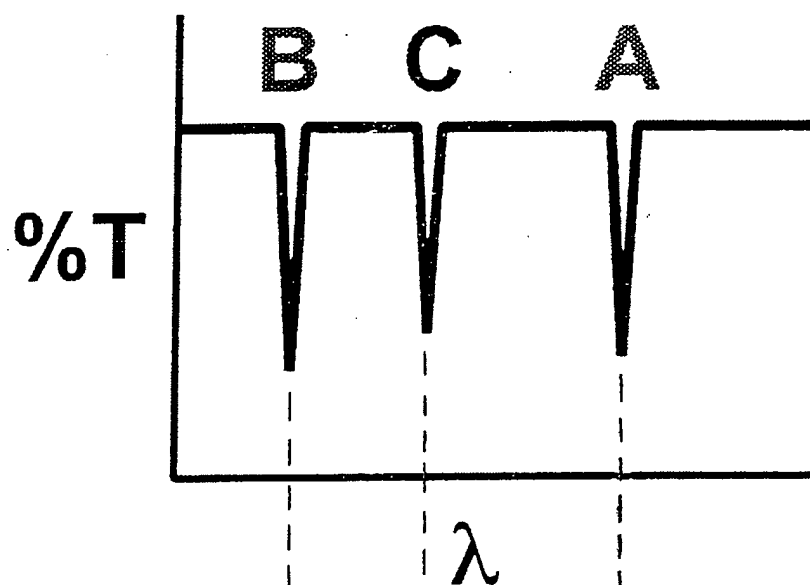


FIGURE 12B

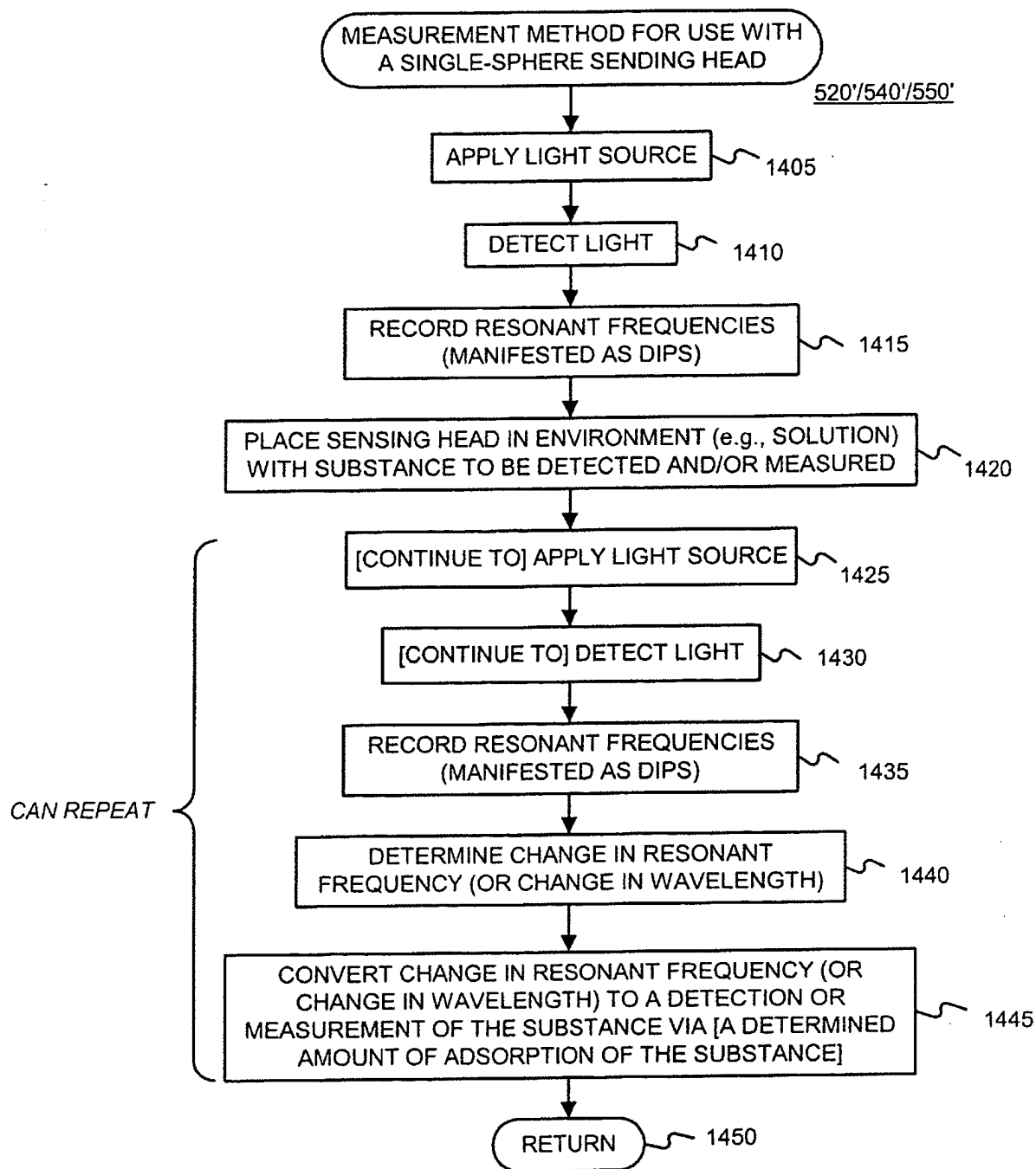
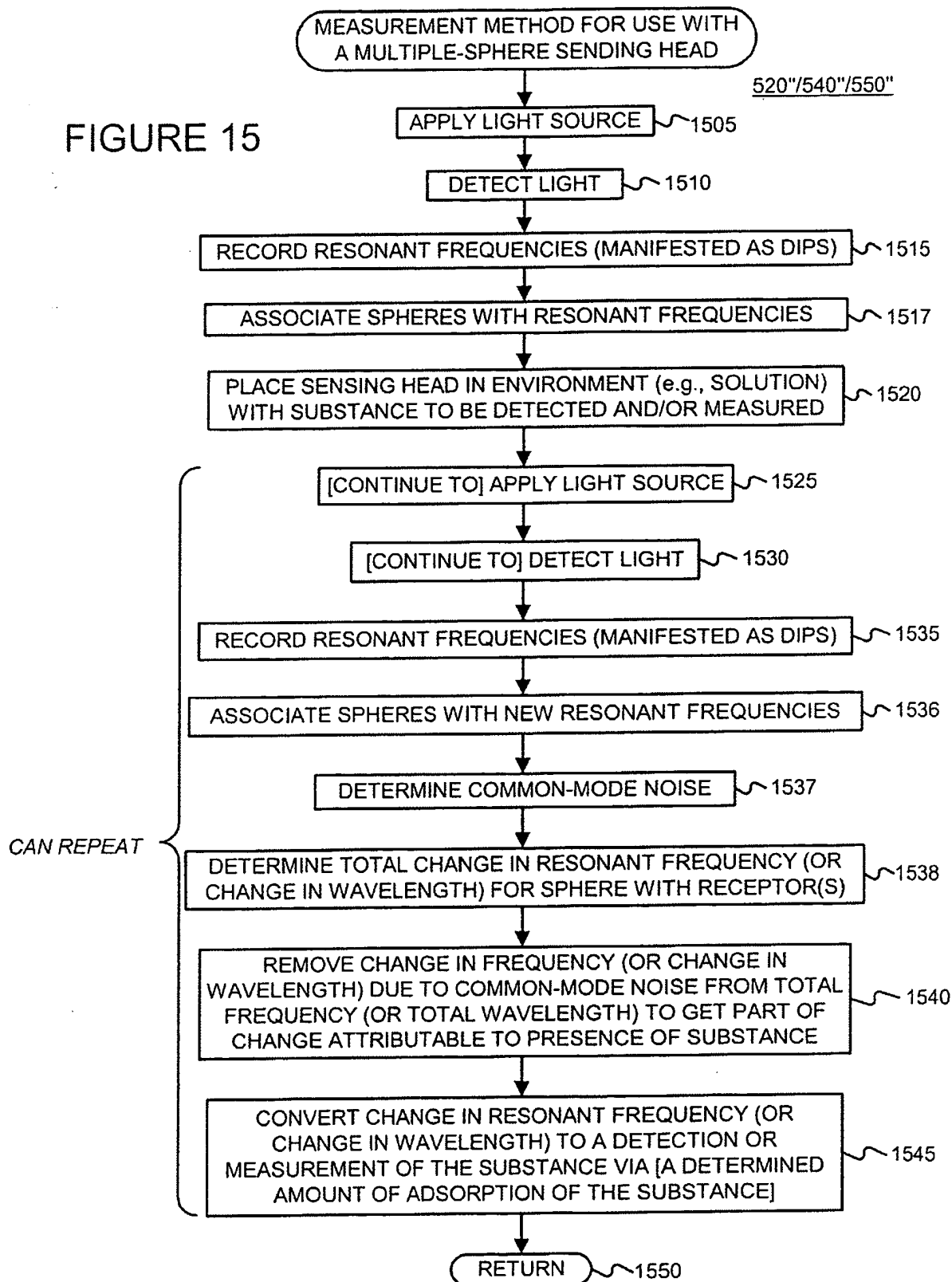


FIGURE 14

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FIGURE 15



BEST AVAILABLE COPY

FIGURE 16

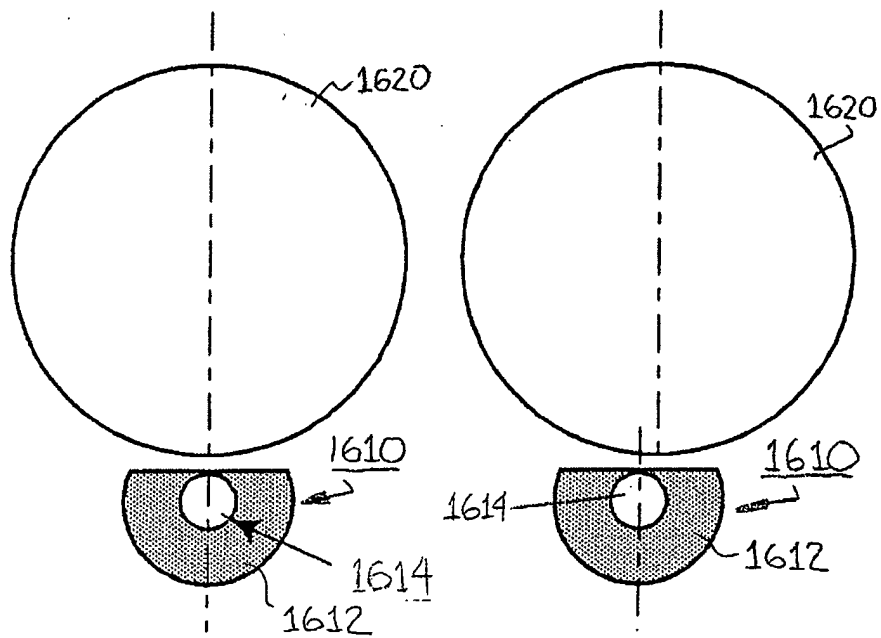
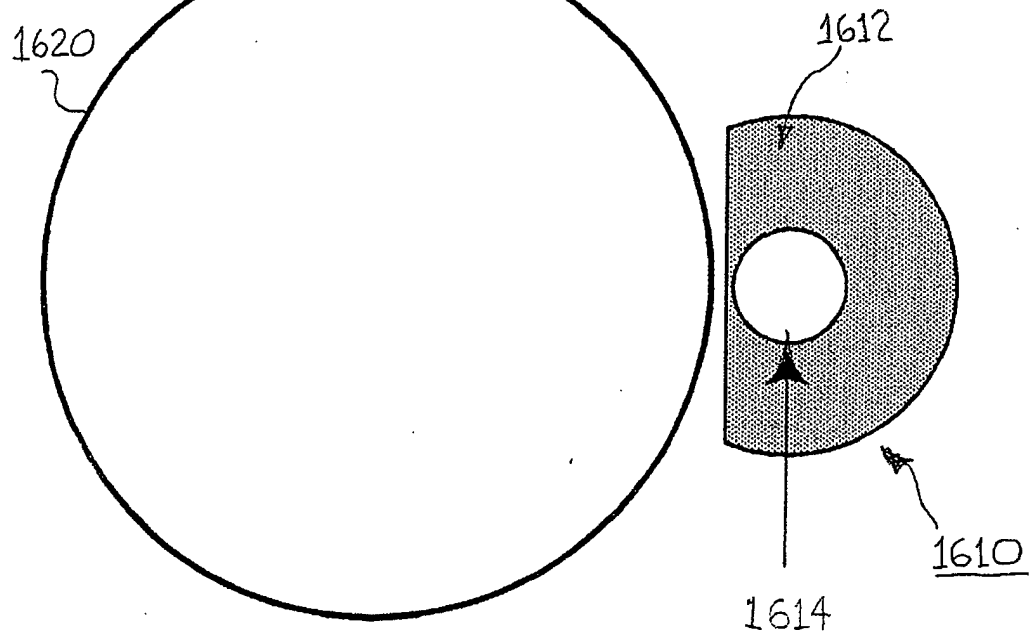
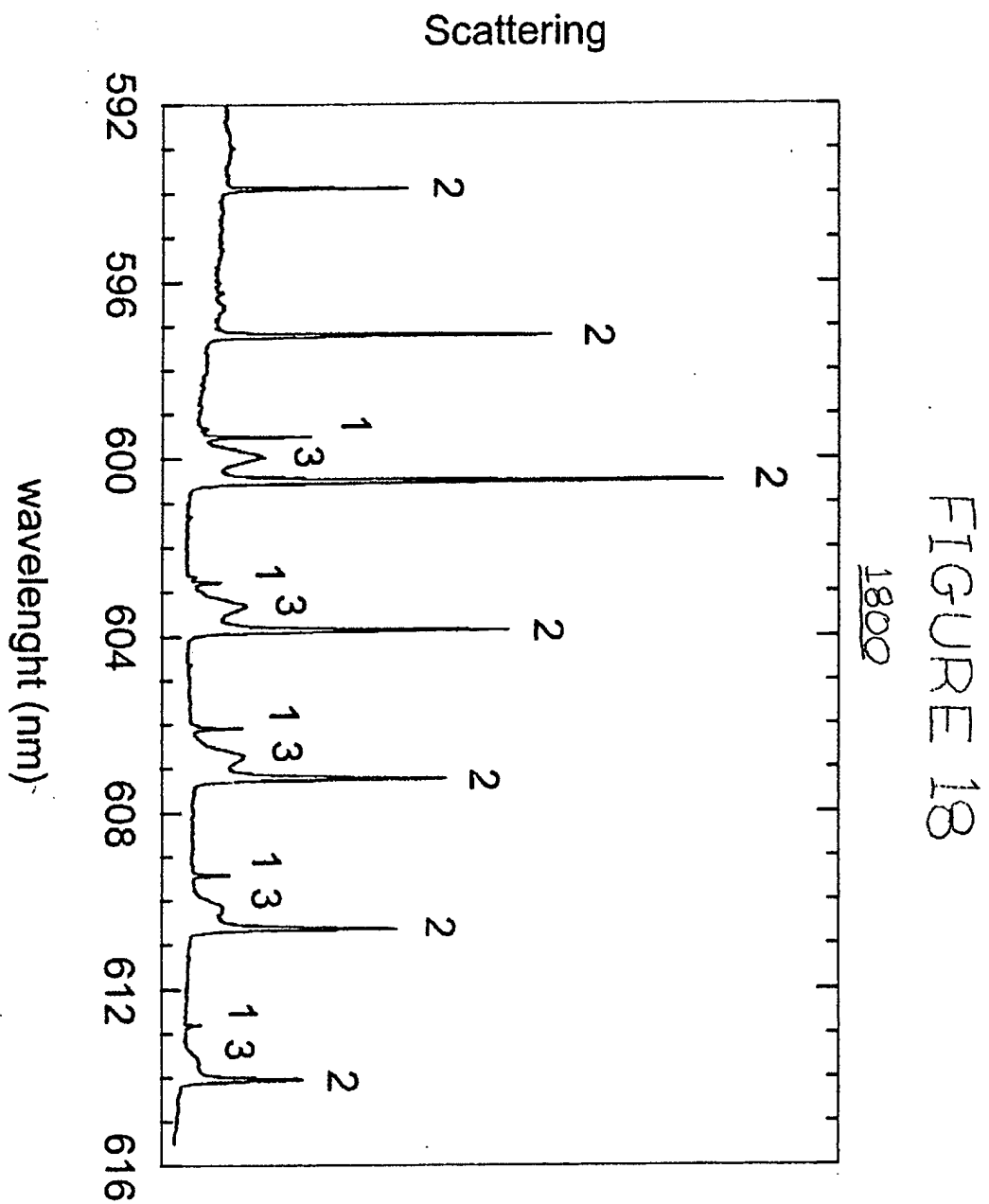


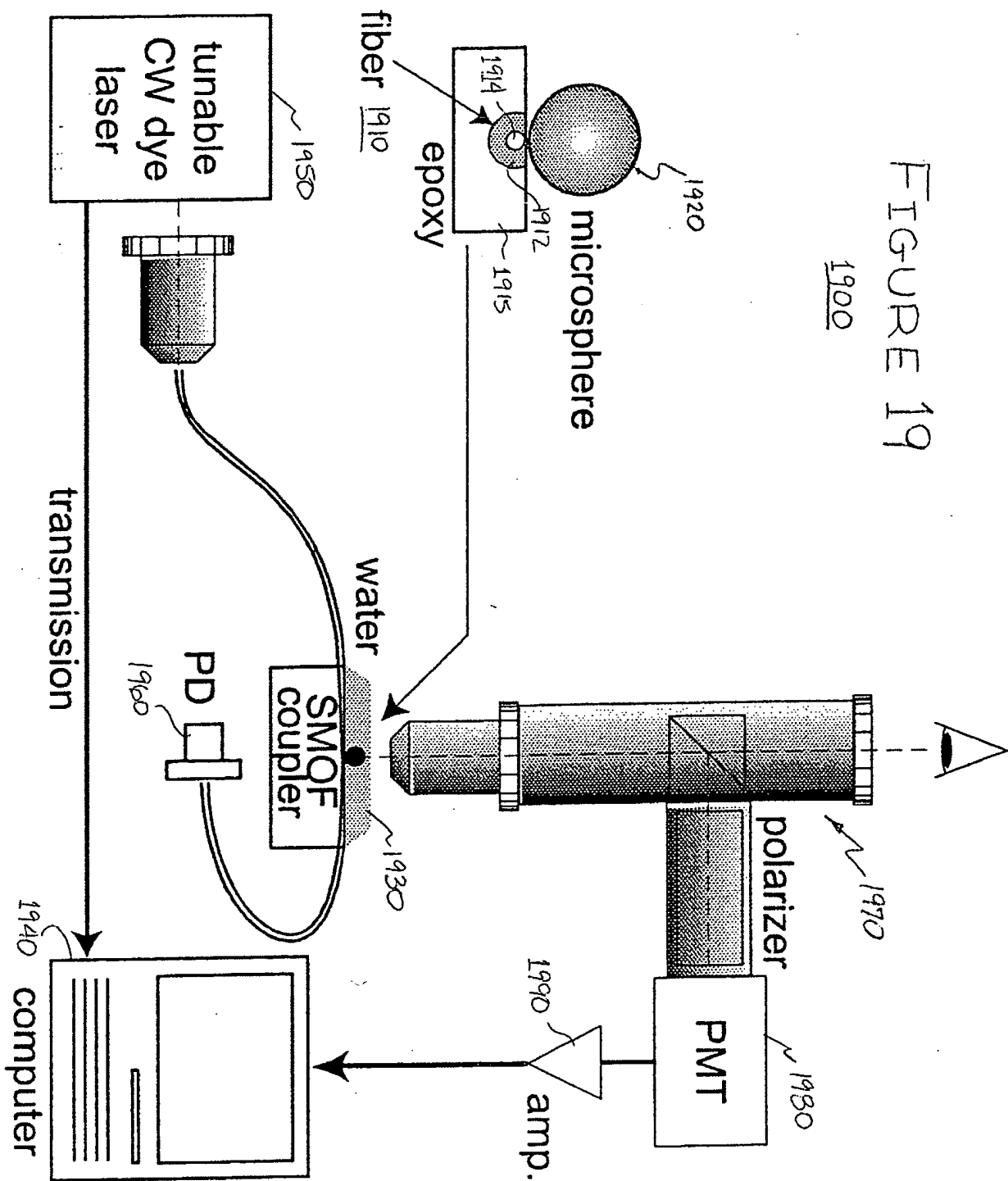
FIGURE 17A

FIGURE 17B



BEST AVAILABLE COPY

FIGURE 19  
1900



BEST AVAILABLE COPY

FIGURE 20

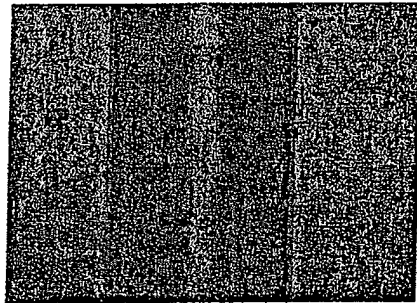
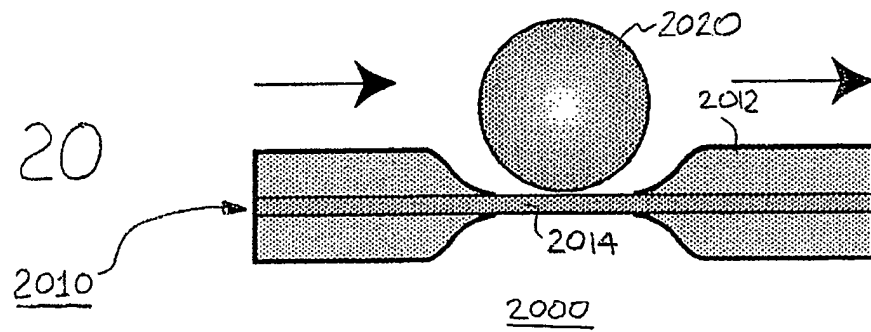


FIGURE 21A



FIGURE 21B

FIGURE 22

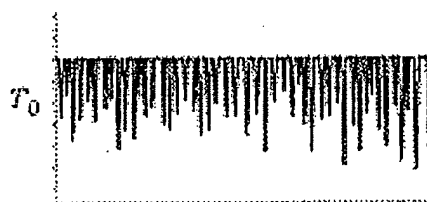
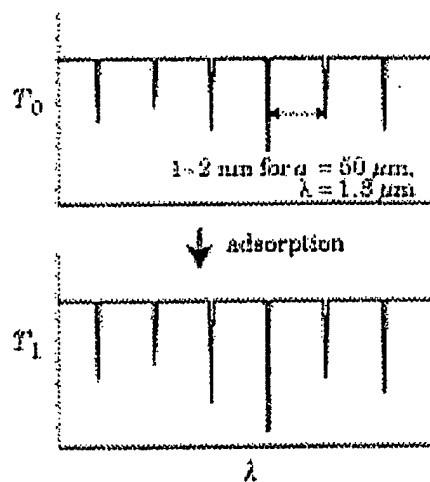
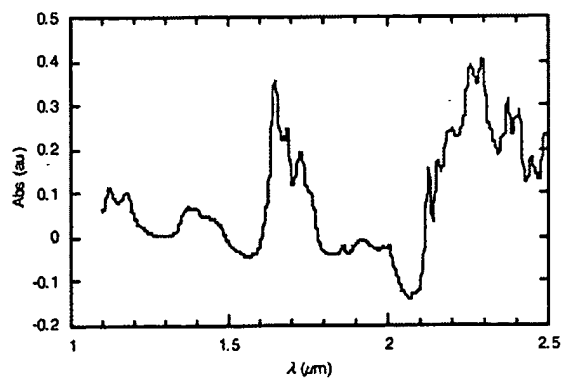


FIGURE 23

FIGURE 24



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FIGURE 25A

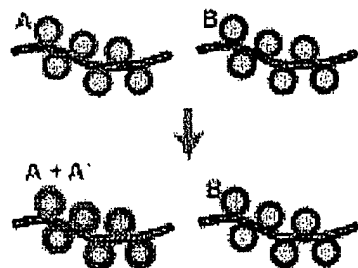


FIGURE 25C



FIGURE 25B

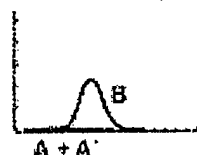
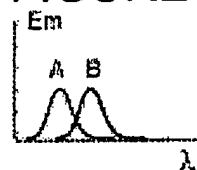


FIGURE 25D

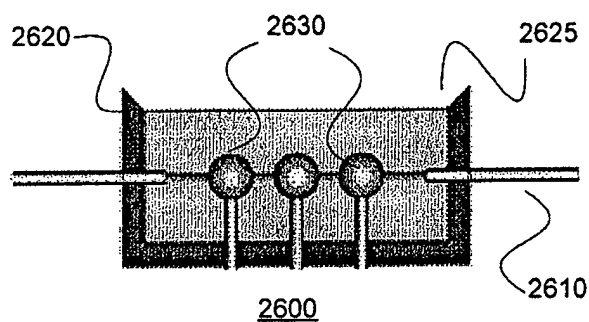


FIGURE 26

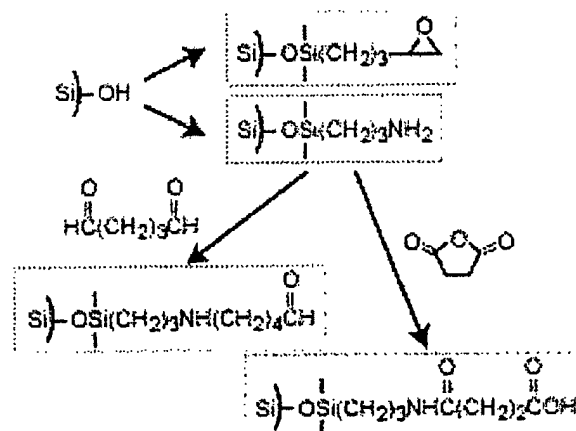


FIGURE 27

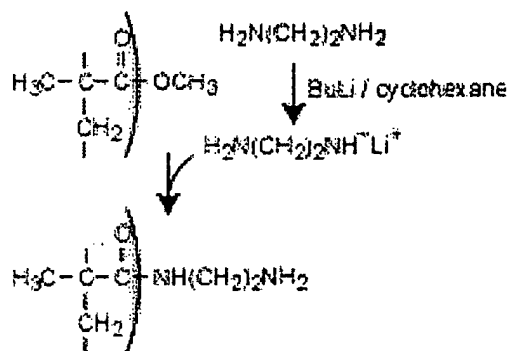


FIGURE 28

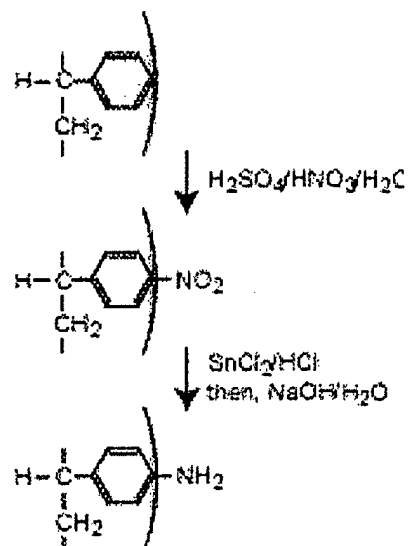
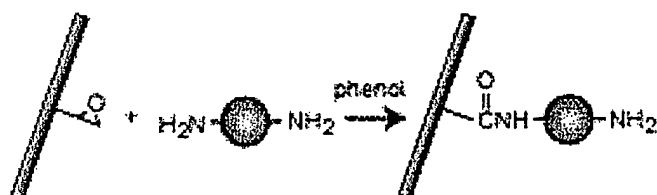
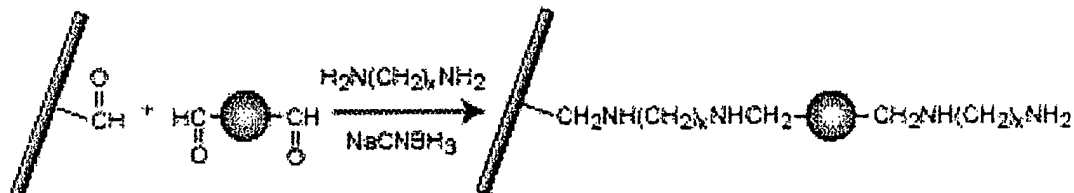


FIGURE 29

epoxy-amine coupling



aldehyde-aldehyde coupling



carboxyl-amine coupling

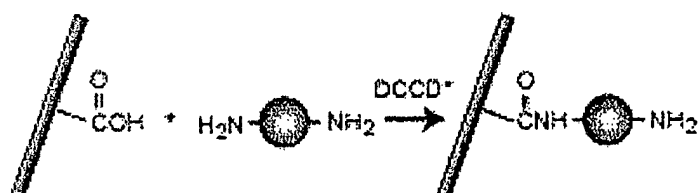


FIGURE 30

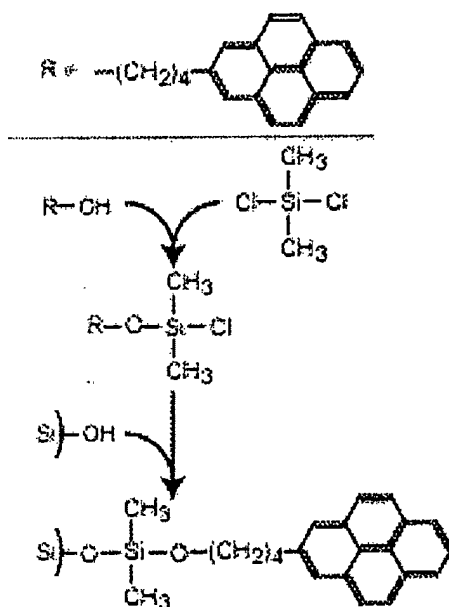


FIGURE 31

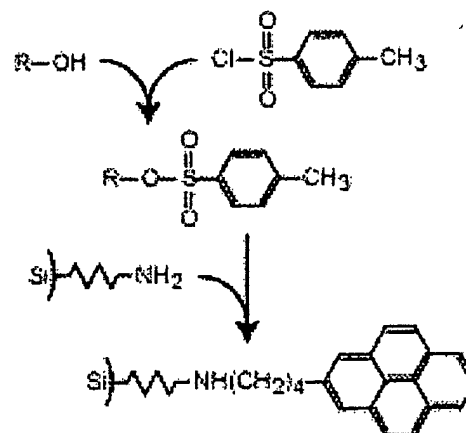
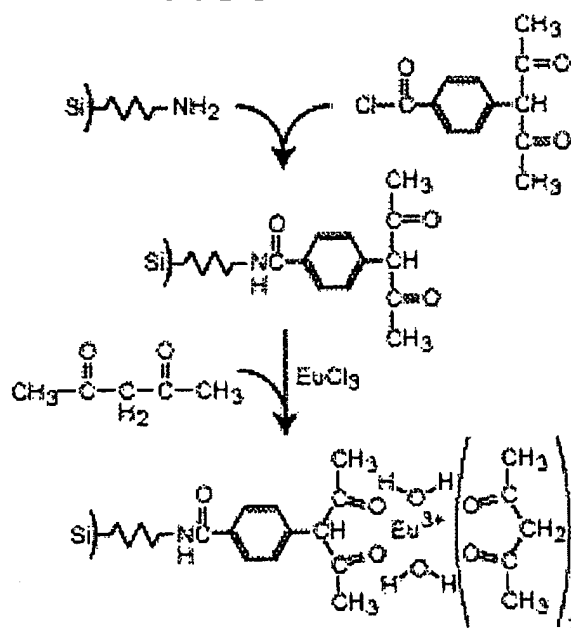


FIGURE 32

FIGURE 33



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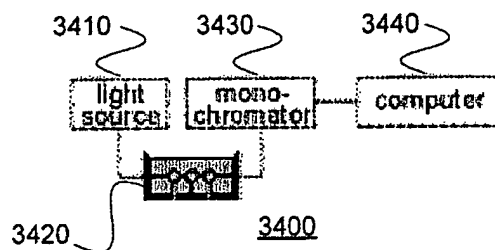


FIGURE 34

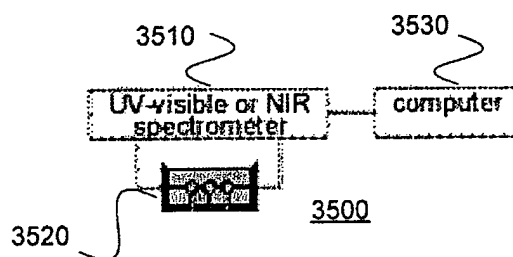


FIGURE 35